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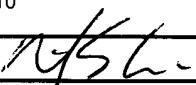
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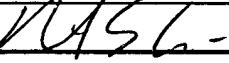
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		Filing Date	12/21/2001
		First Named Inventor	Painter
		Art Unit	2874
		Examiner Name	Daniel E Valencia
		Total Number of Pages in This Submission	16

#5  
TP  
5/8/03

ENCLOSURES (Check all that apply)			
<input checked="" type="checkbox"/> Fee Transmittal Form <input checked="" type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input checked="" type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input checked="" type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Remarks</div> <p>- Form PTO/SB/96 Statement under 37 CFR 3.73(b)  - copies of three (3) assignments  - postcard receipt</p>			
<span style="border: 1px solid black; padding: 2px 10px; display: inline-block;">TECHNICAL EXAMINER RECEIVED MAY 05 2003 U.S. PATENT &amp; TRADEMARK OFFICE</span>			
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual	David S Alavi Reg No 40310		
Signature			
Date	05/05/2003		

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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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Docket No. CQC14NP

Mail Label No. EU715559594US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Painter et al  
Filed: 12/21/2001  
App. No.: 10/037,966  
For: Multi-layer dispersion-engineered  
waveguides and resonators

Art Unit: 2874  
Examiner: Daniel E. Valencia

Electon  
KJ  
5/8/03

ELECTION UNDER 37 CFR §§1.141 AND 1.146  
INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

05/05/2003

Sir:

In response to the Office Action dated 02/03/2003 (requirement for restriction), Applicant hereby elects Group I (Claims 1-74) for further examination. Applicant further elects Species 4 (Claims 12-15 and 16-22) for further examination if no generic claim is held allowable. Examiner has asserted that Claims 1 and 23 are generic. Applicant presumes that Claims 2-4, 24-27, 47-59, and 63, which are not recited in the restriction requirement as belonging to one of the enumerated species, shall remain under examination even if neither of Claims 1 and 23 is held allowable.

Examiner has stated (regarding Species 4) that: "A fourth embodiment represented by Claims 12 and 16-20 is drawn towards an optical device that can vary optical loss based on a control signal." Applicant respectfully points out that the Claims in question each recite a varying control signal resulting in "at least one of varying optical loss and varying modal-index". Applicant presumes that Claims 13-15 (dependent on Claim 12) and Claims 21-22 (dependent on Claim 20) shall be included in elected Species 4.

A one-month shortened statutory period for reply expired on 03/03/2003. Since 05/03/2003 was a Saturday, the present election is timely filed on Monday 05/05/2003 accompanied by a petition for a two-month extension-of-time and the required fee therefor.

An Information Disclosure Statement (IDS) is submitted herewith, along with photocopies of the references cited therein. The IDS has been submitted within the time limits set forth in 37 CFR §1.97(b) (i.e., before the mailing of a first Office Action on the merits).

Copies of a new power-of-attorney (Form PTO/SB/81), statement under 37 CFR §3.73(b) (Form PTO/SB/96), and three assignments are enclosed herewith. Please note the change of Customer Number and correspondence address.

Any questions regarding this election or IDS submission should be directed to the contact information set forth below. Applicant anticipates a first Office Action on the merits in due course.

Respectfully submitted,



David S. Alavi	Reg. No. 40,310
3762 West 11th Ave.	541-686-9462 voice
#408	800-853-6150 fax
Eugene, OR 97402	dalavi@northwestpatent.com



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PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

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## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 5

Substitute for form 1449A/PTO				<i>Complete if Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<u>Application Number</u>	10/037,966
				<u>Filing Date</u>	12/21/2001
				<u>First Named Inventor</u>	Painter
				<u>Art Unit</u>	2874
				<u>Examiner Name</u>	Daniel E Valencia
<u>Sheet</u>	1	<u>of</u>	5	<u>Attorney Docket Number</u>	CQC14NP

## U.S. PATENT DOCUMENTS

## FOREIGN PATENT DOCUMENTS

Examiner  
Signature

*John Cole*

Date  
Considered

5/28/03

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

English language Translation is attached.

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Sheet 2 of 5

**Complete if Known**

Application Number	10/037,966
Filing Date	12/21/2001
First Named Inventor	Painter
Group Art Unit	2874
Examiner Name	Daniel E Valencia
Attorney Docket Number	CQC14NP

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
DV		F. Agahi, B. Pezeski, J. A. Kash, and D. W. Kisker, "Asymmetric Fabry-Perot modulator with a waveguide geometry", Electron. Lett. Vol. 32(3) 210 (1996)	
DV		Carl Arft, Diego R. Yankelovich, Andre Knobelen, Erji Mao, and James S. Harris Jr., "In-line fiber evanescent field electrooptic modulators", Journal of Nonlinear Optical Physics and Materials Vol. 9(1) 79 (2000)	
DV		C. I. H. Ashby, M. M. Bridges, A. A. Allerman, B. E. Hammons, "Origin of the time dependence of wet oxidation of AlGaAs", Appl. Phys. Lett. Vol. 75(1) 73 (1999)	
DV		W. G. Bi and C. W. Tu, "Bowing parameter of the band-gap energy of GaN <sub>x</sub> As <sub>1-x</sub> ", Appl. Phys. Lett. Vol. 70(12) 1608 (1997)	
DV		P. Chavarkar, L. Zhao, S. Keller, A. Fisher, C. Zheng, J. S. Speck, and U. K. Mishra, "Strain relaxation of In <sub>x</sub> Ga <sub>1-x</sub> As during lateral oxidation of underlying AlAs layers", Appl. Phys. Lett. Vol. 75(15) 2253 (1999)	
DV		E. I. Chen, N. Holonyak, Jr., and M. J. Ries, "Planar disorder- and native-oxide-defined photopumped AlAs-GaAs superlattice minidisk lasers", J. Appl. Phys. Vol. 79(11) 8204 (1996)	
DV		K. D. Choquette, K. M. Geib, C. I. H. Ashby, R. D. Tweten, O. Blum, H. Q. Hou, D. M. Follstaedt, B. E. Hammons, D. Mathes, and R. Hull, "Advances in selective wet oxidation of AlGaAs alloys", IEEE Journal of Selected Topics in Quantum Electronics Vol. 3(3) 916 (1997)	
DV		R. H. Horng, D. S. Wu, S. C. Wei, M. F. Huang, K. H. Chang, P. H. Liu, and K. C. Lin, "AlGaN/Pt/AuBe/glass light emitting diodes fabricated by wafer-bonding technology", Appl. Phys. Lett. Vol. 75(2) 154 (1999)	
DV		D. L. Huffaker, H. Deng, Q. Deng, and D. G. Deppe, "Ring and stripe oxide-confined vertical-cavity surface-emitting lasers", Appl. Phys. Lett., Vol. 69(23), 3477 (1996)	
DV		B. Koley, F. G. Johnson, O. King, S. S. Saini, and M. Dagenais, "A method of highly efficient hydrolytic oxidation of III-V semiconductor lattice matched to indium phosphide", Appl. Phys. Lett. Vol. 75(9) 1264 (1999)	
DV		M. Kondow, T. Kitatani, S. Nakatsuka, M. C. Larson, K. Nakahara, Y. Yazawa, M. Okai, and K. Uomi, "GaN <sub>x</sub> As: A novel material for long-wavelength semiconductor lasers", IEEE Journal of Selected Topics in Quantum Electronics, Vol 3(3), 719 (1997)	

Examiner  
SignatureDate  
Considered

5/29/03

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 3 of 5

**Complete if Known**

Application Number	10/037,966
Filing Date	12/21/2001
First Named Inventor	Painter
Group Art Unit	2874
Examiner Name	Daniel E Valencia
Attorney Docket Number	CQC14NP

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
DV		B.A. Little, S.T. Chu, H. A. Haus, J. Foresi, and J.-P. Laine, "Microring channel dropping filters", J. Lightwave Technology Vol. 15 998 (1997)	
DV		Y. Luo, D. C. Hall, L. Kou, L. Steingart, J. H. Jackson, O. Blum, and H. Hou, "Oxidized Al <sub>x</sub> Ga <sub>1-x</sub> As heterostructures planar waveguides", Appl. Phys. Lett. Vol. 75(20) 3078 (1999)	
DV		M. H. MacDougal, P. D. Dapkus, A. E. Bond, C.-K. Lin, and J. Geske, "Design and fabrication of VCSEL's with Al <sub>x</sub> O <sub>y</sub> -GaAs DBR's", IEEE Journal of Selected Topics in Quantum Electronics Vol. 3(3) 905 (1997)	
DV		M. H. MacDougal, P. D. Dapkus, "Wavelength shift of selectively oxidized Al <sub>x</sub> O <sub>y</sub> -AlGaAs-GaAs distributed Bragg reflectors", IEEE Photonics Tech. Lett. Vol. 9(7) 884 (1997)	
DV		R. L. Naone and L. A. Coldren, "Surface energy model for the thickness dependence of the lateral oxidation of AlAs", J. Appl. Phys. Vol. 82(5) 2277 (1997)	
DV		N. Ohnoki, F. Koyama, and K. Iga, "Superlattice AlAs/AlInAs-oxide current aperture for long wavelength InP-based vertical-cavity surface-emitting laser structure", Appl. Phys. Lett. Vol. 73(22) 3262 (1998)	
DV		N. Ohnoki, F. Koyama, and K. Iga, "Super-lattice AlAs/AlInAs for lateral-oxide current confinement in InP-based lasers", J. Crystal Growth Vol. 195 603 (1998)	
DV		R. D. Pechstedt, P. St. J. Russell, T. A. Birks, and F. D. Lloyd-Lucas, "Selective coupling of fiber modes with use of surface-guided Bloch modes supported by dielectric multilayer stacks", J. Opt. Soc. Am. A Vol. 12(12) 2655 (1995)	
DV		R. D. Pechstedt, P. St. J. Russell, "Narrow-band in-line fiber filter using surface-guided Bloch modes supported by dielectric multilayer stacks", J. Lightwave Tech. Vol. 14(6) 1541 (1996)	
DV		B. Pezeshki, J. A. Kash, D. W. Kisker, and F. Tong, "Multiple wavelength light source using an asymmetric waveguide coupler", Appl. Phys. Lett. Vol. 65(2) 138 (1994)	
DV		B. Pezeshki, J. A. Kash, D. W. Walker, and F. Tong, "Wavelength sensitive tapered coupler with anti-resonant waveguides", IEEE Phot. Tech. Lett. Vol. 6(10) 1225 (1994)	

Examiner  
Signature*Daniel E Valencia*Date  
Considered

5/30/03

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## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet 4 of 5

<i>Complete if Known</i>	
<b>Application Number</b>	10/037,966
<b>Filing Date</b>	12/21/2001
<b>First Named Inventor</b>	Painter
Group Art Unit	2874
Examiner Name	Daniel E Valencia
Attorney Docket Number	CQC14NP

## OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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DV		B. Pezeshki, F. F. Tong, J. A. Kash, and D. W. Kisker, "Vertical cavity devices as wavelength selective waveguides", J. Lightwave Tech. Vol. 12(10) 1791 (1994)	
DV		B. Pezeshki, J. A. Kash, and F. Agahi, "Waveguide version of an asymmetric Fabry-Perot modulator", Appl. Phys. Lett. Vol. 67(12) 1662 (1995)	
DV		H. Saito, T. Makimoto, and N. Kobayashi, "MOVPE growth of strained InGaAsN/GaAs quantum wells", J. Crystal Growth, Vol. 195 416 (1998)	
DV		I.-H. Tan, C. Reaves, A. L. Holmes Jr., E. L. Hu, J. E. Bowers, and S. DenBaars, "Low-temperature bonding of III-V semiconductors", Electronics Letters 31 588 (1995)	
DV		H. Wada and T. Kamijoh, "Effects of heat treatment on bonding properties in InP-to-Si direct wafer bonding", Japanese Journal of Applied Physics Part 1 33 4878 (1994)	
DV		H. Wada, T. Kamijoh, and Y. Ogawa, "Direct bonding of InP to different materials for optical devices", Proceedings of the 3rd International Symposium on Semiconductor Wafer Bonding Science, Technology, and Applications, 95-97 579, The Electrochemical Society (Pennington NJ, 1995)	
DV		H. Wada and T. Kamijoh, "Room-temperature cw operation of InGaAsP lasers on Si fabricated by wafer bonding", IEEE Photonics Technology Letters 8 173 (1996)	
DV		H. Wada and T. Kamijoh, "Wafer bonding of InP to Si and its application to optical devices", Japanese Journal of Applied Physics Part 1 37 1383 (1998)	
DV		Z. J. Wang, S.-J. Chua, F. Zhou, W. Wang, and R. H. Wu, "Buried heterostructures InGaAsP/InP strain-compensated multiple quantum well laser with a native-oxidized InAlAs current blocking layer", Appl. Phys. Lett. Vol 73(26) 3803 (1998)	11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 22010 22011 22012 22013 22014 22015 22016 22017 22018 22019 22020 22021 22022 22023 22024 22025 22026 22027 22028 22029 22030 22031 22032 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Examiner  
Signature

D. Vali

Date Considered

5/30/03

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



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PTO/SB/08B (10-01)

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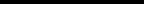
## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 5 of 5

<i>Complete if Known</i>	
<b>Application Number</b>	10/037,966
<b>Filing Date</b>	12/21/2001
<b>First Named Inventor</b>	Painter
Group Art Unit	2874
Examiner Name	Daniel E Valencia
Attorney Docket Number	CQC14NP

## OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Signature		Date Considered	5/30/03
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



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## POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	10/037,966
Filing Date	12/21/2001
First Named Inventor	Painter
Title	MULTI-LAYER DISPERSION-ENGINEERED WAVEGUIDES AND RESONATORS
Group Art Unit	
Examiner Name	
Attorney Docket Number	CQC14NP

I hereby appoint:

Practitioners at Customer Number

36394



OR

Practitioner(s) named below:

Name	Registration Number

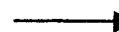
as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

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Address

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City

State

Zip

Country

Telephone

Fax

I am the:

Applicant/Inventor.

Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

### SIGNATURE of Applicant or Assignee of Record

Name

Jeffrey S. Richhier, President and CEO, Xponent Photonics Inc.

Signature

Date

4-1-2003

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

\*Total of 1 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

\*COPY\*

**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Xponent Photonics, Inc.Application No./Patent No.: 10/037,966 Filed/Issue Date: 12/21/2001Entitled: MULTI-LAYER DISPERSION-ENGINEERED WAVEGUIDES AND RESONATORS

Xponent Photonics, Inc. , a corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

- the assignee of the entire right, title, and interest; or
- an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

A.  An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

B.  A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet.

Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

4-1-2003

Date

Jeffrey S. Rittichier

Typed or printed name

Signature

President and CEO, Xponent Photonics Inc.

Title

\*COPY\*



## ASSIGNMENT OF APPLICATION

Docket Number (Optional)  
CQC14NP

Whereas, I/We, Oskar J. Painter of Pasadena, CA, hereafter referred to as applicant, have invented certain new and useful improvements in Multi-layer dispersion-engineered waveguides and resonators

for which an application for a United States Patent was filed on 12/21/2001  
Application Number 10 / 037,966

for which an application for a United States Patent was executed on \_\_\_\_\_ and

Whereas, Xponent Photonics Inc of Monrovia, CA herein referred to "assignee" whose mailing address is 425 East Huntington Drive, Monrovia, CA 91016 is desirous of acquiring the entire right, title and interest in the same;

Now, therefore, in consideration of the sum of ten dollars (\$ 10), the receipt whereof is acknowledged, and other good and valuable consideration, I/We, the applicant(s), by these presents do sell, assign and transfer unto said assignee the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to any and all Patents which may be granted therefor in the United States, I/We hereby authorize and request the Commissioner of Patent and Trademarks to issue said United States Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof; and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

Executed this 19<sup>th</sup> day of MARCH, 2003  
at Monrovia, California

(Signature)

State of CALIFORNIA SS:  
County of Los Angeles

Before me personally appeared said OSKAR PAINTER  
and acknowledged the foregoing instrument to be his act and deed on the 19<sup>th</sup> day of MARCH, 2003.



PAMELA A. STOCK  
Comm. #1216780  
NOTARY PUBLIC - CALIFORNIA  
Los Angeles County

19<sup>th</sup>  
Pamela Stock

Seal

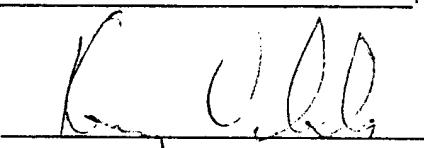
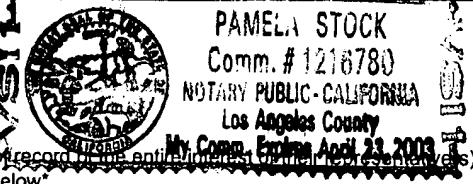
Note: Signatures of all the inventors or assignees or record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required. See below\*.

\*  Total of 3 forms are submitted.

\*COPY\*



Sample Form (former PTO/SB/15) (05-01)

<b>ASSIGNMENT OF APPLICATION</b>		Docket Number (Optional) CQC14NP
<p>Whereas, I/We, <u>Kerry J. Vahala</u> of <u>San Gabriel, CA</u>, hereafter referred to as applicant, have invented certain new and useful improvements in <u>Multi-layer dispersion-engineered waveguides and resonators</u></p> <p><input checked="" type="checkbox"/> for which an application for a United States Patent was filed on <u>12/21/2001</u> Application Number <u>10 / 037,966</u>.</p> <p><input type="checkbox"/> for which an application for a United States Patent was executed on _____, and</p> <p>Whereas, <u>Xponent Photonics Inc</u> of <u>Monrovia, CA</u> herein referred to "assignee" whose mailing address is <u>425 East Huntington Drive, Monrovia, CA 91016</u> is desirous of acquiring the entire right, title and interest in the same;</p> <p>Now, therefore, in consideration of the sum of <u>ten</u> dollars (<u>\$ 10</u>), the receipt whereof is acknowledged, and other good and valuable consideration, I/We, the applicant(s), by these presents do sell, assign and transfer unto said assignee the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to any and all Patents which may be granted therefor in the United States, I/We hereby authorize and request the Commissioner of Patent and Trademarks to issue said United States Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof; and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.</p> <p>Executed this <u>11<sup>st</sup></u> day of <u>MARCH</u>, 20<u>03</u> at <u>MONROVIA, CALIFORNIA</u></p> <p> (Signature)</p> <p>State of <u>CALIFORNIA</u> County of <u>LOS ANGELES</u> SS: _____</p> <p>Before me personally appeared said <u>KERRY VAHALA</u> and acknowledged the foregoing instrument to be his free act and deed this <u>11<sup>st</sup></u> day of <u>MARCH</u>, 20<u>03</u>.</p> <p> PAMELA STOCK Comm. #1216780 NOTARY PUBLIC - CALIFORNIA Los Angeles County My Commission Expires April 23, 2003 (Notary Public)</p> <p>Note: Signatures of all the inventors or assignees of record (if the entire instrument is signed by one or more inventors or assignees) are required. Submit multiple forms if more than one signature is required. See below.</p> <p>* <input checked="" type="checkbox"/> Total of <u>3</u> forms are submitted.</p>		

\*COPY\*



## ASSIGNMENT OF APPLICATION

Docket Number (Optional)  
CQC14NP

Whereas, I/We, David W. Vernooy of Sierra Madre, CA, hereafter referred to as applicant, have invented certain new and useful improvements in Multi-layer dispersion-engineered waveguides and resonators

for which an application for a United States Patent was filed on 12/21/2001  
Application Number 10 / 037,966.

for which an application for a United States Patent was executed on \_\_\_\_\_, and

Whereas, Xponent Photonics Inc of Monrovia, CA herein referred to "assignee" whose mailing address is 425 East Huntington Drive, Monrovia, CA 91016 is desirous of acquiring the entire right, title and interest in the same;

Now, therefore, in consideration of the sum of ten dollars (\$ 10), the receipt whereof is acknowledged, and other good and valuable consideration, I/We, the applicant(s), by these presents do sell, assign and transfer unto said assignee the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to any and all Patents which may be granted therefor in the United States, I/We hereby authorize and request the Commissioner of Patent and Trademarks to issue said United States Patent to said assignee, of the entire right, title, and interest in and to the same, for his sole use and behoof; and for the use and behoof of his legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.

Executed this 17<sup>th</sup> day of MARCH, 2003.  
at Monrovia, California

State of CALIFORNIA  
County of LOS ANGELES SS:

Before me personally appeared said DAVID VERNOOY

and acknowledged the foregoing instrument to be his free act and deed this 17<sup>th</sup>  
day of MARCH, 2003.

Seal

Note: Signatures of all the inventors or assignees of record of the entire interest in the invention are required. Submit multiple forms if more than one signature is required. See below.

\*  Total of 3 forms are submitted.

This form offers a sample or suggested format for an assignment document. This sample form is not an OMB officially approved form.

\*COPY\*